

## CLAIMS

1. A mobile terminal, comprising:  
a terminal body;  
5 an antenna connected to a high frequency signal source within the terminal body; and  
a grounding means connected to a ground voltage source within the terminal body.
- 10 2. The mobile terminal according to claim 1, wherein the antenna is a monopole antenna.
3. The mobile terminal according to claim 1, wherein the grounding means is exposed to the outside of the terminal  
15 body.
4. The mobile terminal according to claim 1, wherein the grounding means is exposed to the outside of the terminal  
20 body.
5. The mobile terminal according to claim 1, wherein the grounding means is embedded within the terminal body.
6. The mobile terminal according to claim 5, wherein an  
25 electro magnetic interference EMI intercepting metal shield

is formed in a space other than a space where the grounding means is formed in the inside of the terminal body.

7. The mobile terminal according to any one of claims 1 to 6, wherein the antenna includes:

an antenna coil of which the linear length is  $1/4$  of the wavelength of the electric wave and which receives a high frequency signal power from the high frequency signal source.

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8. The mobile terminal according to claim 1, wherein the antenna includes:

a first core; and

an antenna coil wound on the first core to receive a high frequency signal power from the high frequency signal source.

9. The mobile terminal according to claim 1, wherein the grounding means includes:

at least one grounding coil connected to the ground voltage source.

10. The mobile terminal according to claim 8, wherein the grounding means includes:

a second core through which a conductive inner core

penetrates and of which the surface is insulated from the conductive inner core, wherein the conductive inner core is electrically connected to the high frequency signal source and the antenna coil; and

5 a grounding coil wound on the second core and connected to the ground voltage source.

11. The mobile terminal according to claim 10, wherein each linear length of the antenna coil and the grounding  
10 coil is  $1/4$  of the wavelength of the electric wave.

12. The mobile terminal according to claim 1, wherein the antenna includes:

an antenna coil to receive a high frequency signal  
15 power from the high frequency signal source;

a conductive inner core electrically connected to the high frequency signal source and the antenna coil;

a core through which a conductive inner core penetrates, of which the surface is insulated from the  
20 conductive inner core, and which has a conductive surface electrically connected to the ground voltage source; and

at least one grounding coil connected to the ground voltage source through the conductive surface of the core.

25 13. The mobile terminal according to claim 12, wherein

each linear length of the antenna coil and the grounding coil is  $1/4$  of the wavelength of the electric wave.

14. An antenna of a mobile terminal, comprising:

5 a grounding means exposed to the outside of the mobile terminal.

15. The antenna of a mobile terminal according to claim 14, wherein the grounding means has a length of  $1/4$  of a  
10 wavelength of an electric wave.

16. The antenna of a mobile terminal according to claim 14, further comprising:

a dielectric substance formed between the grounding  
15 means and the mobile terminal.

17. An antenna of a mobile terminal, comprising:

an antenna coil to receive a high frequency signal;  
and

20 a grounding means having a length of  $1/4$  of a wavelength of an electric wave.

18. The antenna of a mobile terminal according to claim 17, wherein the grounding means includes:

25 at least one grounding coil of which the linear

length is  $1/4$  of the wavelength of the electric wave.

19. The antenna of a mobile terminal according to claim 17, further comprising:

5       a first core on which the antenna coil is wound;  
      a conductive inner core electrically connected to one end of the antenna coil to receive the high frequency signal; and

      a second core through which the conductive inner core  
10 penetrates and of which the surface is insulated from the conductive inner core,

and

      wherein the at least one grounding coil is wound on the surface of the second core.

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20. The antenna of a mobile terminal according to claim 18, further comprising:

      a conductive inner core electrically connected to one end of the antenna coil to receive the high frequency  
20 signal; and

      a core through which the conductive inner core penetrates, which remains to be insulated from the conductive inner core and which has a conductive surface connected to the ground voltage source,

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and

wherein one end of the at least one grounding coil is connected to the surface of the core.

21. An antenna of a mobile terminal, comprising:

5 an antenna coil;

a first core on which the antenna coil is wound;

a conductive inner core electrically connected to one end of the antenna coil to supply a high frequency signal to the antenna coil;

10 a second core through which the conductive inner core penetrates and of which the surface is insulated from the conductive inner core; and

at least one grounding coil wound on the second core to receive a ground voltage.

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22. An antenna of a mobile terminal, comprising:

an antenna coil;

a conductive inner core electrically connected to one end of the antenna coil to supply a high frequency signal to the antenna coil;

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a core through which the conductive inner core penetrates;

a grounding surface formed on the surface of the core to receive a ground voltage;

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at least one grounding coil connected to the

grounding surface,

and

wherein one end of the at least one grounding coil is  
connected to the grounding surface.